

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A robot comprising:

a base member;

a moving platform operative as the end effector of the robot;

a plurality of adjustable links connecting said base member to said moving platform, the status of each of said adjustable links being known by means of a sensor associated with each of said links, the combined outputs of said sensors indicating the pose of said platform; and

a single additional sensor connected between said base member and said moving platform.

2. (Currently amended) A robot according to claim 1 and wherein at least one of said adjustable links is a linear extensible link and said sensor associated with said linear extensible link is a length sensor.

3. (Canceled)

4. (Currently amended) A robot according to claim 1 and wherein at least one of said adjustable links is an angular rotational hinge, and said sensor associated with said angular rotational hinge is an angular sensor.

5. (Canceled)

6. (Currently amended) A robot according to ~~any of the previous claims~~ claim 1 and wherein said single additional sensor is any one of a length sensor and an angular sensor.

7. (Canceled)

8. (Currently amended) A robot according to ~~any of the previous claims~~ claim 1 and also comprising a controller which verifies at least one of the position and orientation of said moving platform as determined by the sensors associated with each of said plurality of links, by means of the output of said single additional sensor.

9. (Currently amended) A robot according to ~~any of the previous claims~~ claim 8 and wherein said controller provides an absolute verification of at least one of the position and orientation of said moving platform in the event that any one sensor is providing an erroneous output.

10. (Currently amended) A robot according to ~~any of the previous claims~~ claim 8 and wherein said controller provides a verification having a statistically insignificant probability of falsehood, of at least one of the position and orientation of said moving platform, in the event that two or more sensors simultaneously provide erroneous outputs.

11. (Canceled)

12. (Currently amended) A robot according to ~~any of the previous claims~~ claim 1 and wherein said plurality of extensible links is six links, and said single additional sensor is a seventh sensor.

13. (Currently amended) A robot according to ~~any of claims 1 to 11~~ claim 1 and wherein said plurality of links is four links, and said single additional sensor is a fifth sensor.

14. (Canceled)

15. (Currently amended) A robot according to ~~any of the previous claims~~ claim 1 and wherein said robot is either of a parallel robot and a hybrid series-parallel robot.

16. (Canceled)

17. (Currently amended) A method of ~~verifying the positional reliability of using~~ a robot, comprising the steps of:

providing a robot comprising a base member, a moving platform operative as the end effector of the robot, and a plurality of adjustable links connecting said base member to said moving platform, the status of each of said adjustable links being known by means of a sensor associated with each of said links, and the combined outputs of said sensors indicating the pose of said platform; and

connecting a single additional sensor between said base member and said moving platform between predetermined points thereon; and

using information from said sensor to provide verification for the positional reliability of said robot.

18. (Currently amended) A method according to claim 17 and wherein said step of using information comprises also comprising the step of verifying by means of a controller that at least one of the position and orientation of said moving platform determined by the sensors associated with each of said plurality of links, is consistent with at least one of the corresponding relative position or and orientation of said predetermined points, as determined by said single additional sensor.

19. (Currently amended) A method according to ~~either of claims 17 and 18~~ claim 17 and wherein at least one of said adjustable links is a linear extensible link, and said sensor associated with said linear extensible link is a length sensor.

20. (Canceled)

21. (Currently amended) A method according to ~~either of claims 17 and 18~~ claim 17 and wherein at least one of said adjustable links is an angular rotational hinge, and said sensor associated with said angular rotational hinge is an angular sensor.

22. (Canceled)

23. (Currently amended) A method according to ~~either of claims 17 and 18~~ claim 17 and wherein said single additional sensor is any one of a length sensor and an angular sensor.

24. (Canceled)

25. (Currently amended) A method according to ~~any of claims 17 to 24~~ claim 18 and wherein said ~~controller~~ verifying provides an absolute verification of at least one of the position and orientation of said moving platform in the event that any one sensor is providing an erroneous output.

26. (Currently amended) A method according to ~~any of claims 17 to 25~~ claim 18 and wherein said ~~controller~~ verifying provides a verification having a statistically insignificant probability of falsehood, of at least one of the position and orientation of said moving platform, in the event that two or more sensors simultaneously provide erroneous outputs.

27. (Canceled)

28. (Currently amended) A method according to ~~any of claims 17 to 27~~ claim 17 and wherein said plurality of extensible links is six links, and said single additional sensor is a seventh sensor.

29. (Currently amended) A method according to ~~any of claims 17 to 27~~ claim 17 and wherein said plurality of links is four links, and said single additional sensor is a fifth sensor.

30. (Canceled)

31. (Currently amended) A method according to ~~any of claims 17 to 30~~ claim 17 and wherein said robot is either of a parallel robot and a hybrid series-parallel robot.

32. (Canceled)